



R18 Regulation

Subject code: 2E8DG

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

B.Tech VIII Semester Regular Examinations, June 2022

EMBEDDED SYSTEMS

(ELECTRONICS AND COMMUNICATION ENGINEERING)

Maximum Marks: 70

Date:20.06.2022 Duration: 3 hours

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 List the classifications of embedded system.
- 2 List the major applications of embedded system.
- 3 What is the difference between microprocessor and ASIC?
- 4 What is meant by firmware?
- 5 Give the significance of IoT.
- 6 What are the Bottlenecks faced by Embedded Industry?
- 7 What is the need of task synchronization?
- 8 Define task scheduling.
- 9 What is a binary semaphore?
- 10 What is RTOS?

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Explain the characteristics of embedded systems. (10)
OR
- 12 Discuss the operational quality attributes of an embedded system. (10)
- 13 Explain about core of the embedded system. (10)
OR
- 14 Describe the significance of reset circuit and Brown-out protection circuit. (10)
- 15 Explain the external communication interfaces. (10)
OR
- 16 Discuss the processor trends in embedded systems. (10)
- 17 What are the different types of operating systems? Explain briefly. (10)
OR
- 18 Explain about multitasking, multiprocessing and multithreading concepts. (10)
- 19 Explain in detail, the different task communication synchronization issues encountered in Inter Process communication. (10)
OR
- 20 Explain how semaphores are used for task synchronization. (10)